Proposed Item for Biobased Designation

The following biobased product information has been collected to support item designation by USDA for the BioPreferred Program. This summary reflects data available as of May 18, 2007.

Title: Ink Removers and Cleaners

Description: Chemical products designed to remove ink, haze, glaze, and other residual ink contaminants from the surfaces of equipment, such as rollers, used in the textile and printing industries.

Manufacturers Identified: 9 manufacturers producing Ink Removers and Cleaners have been identified through internet searches, manufacturer's directories, trade associations, and company submissions.

Industry Associations Investigated: The following industry associations have been investigated for member companies producing Ink Removers and Cleaners:

- Biobased Manufacturers Association
- United Soybean Board
- Association of Specialists in Cleaning and Restoration
- Oregon Dry Cleaners Association
- Carpet & Rug Institute
- Unified Green Cleaning Alliance
- Washington Environmental Council
- Low Moisture Carpet Cleaners Association

Commercially Available Products Identified: Of the manufacturers identified, 17 Ink Removers and Cleaners are commercially available on the market.

Product Information Collected: Specific product information including company contact, intended use, biobased content, and performance characteristics have been collected on 1 Ink Removers and Cleaners.

Industry Performance Standards: Product information submitted by biobased manufacturers indicate that have typically been tested to the following industry standards:

- None found

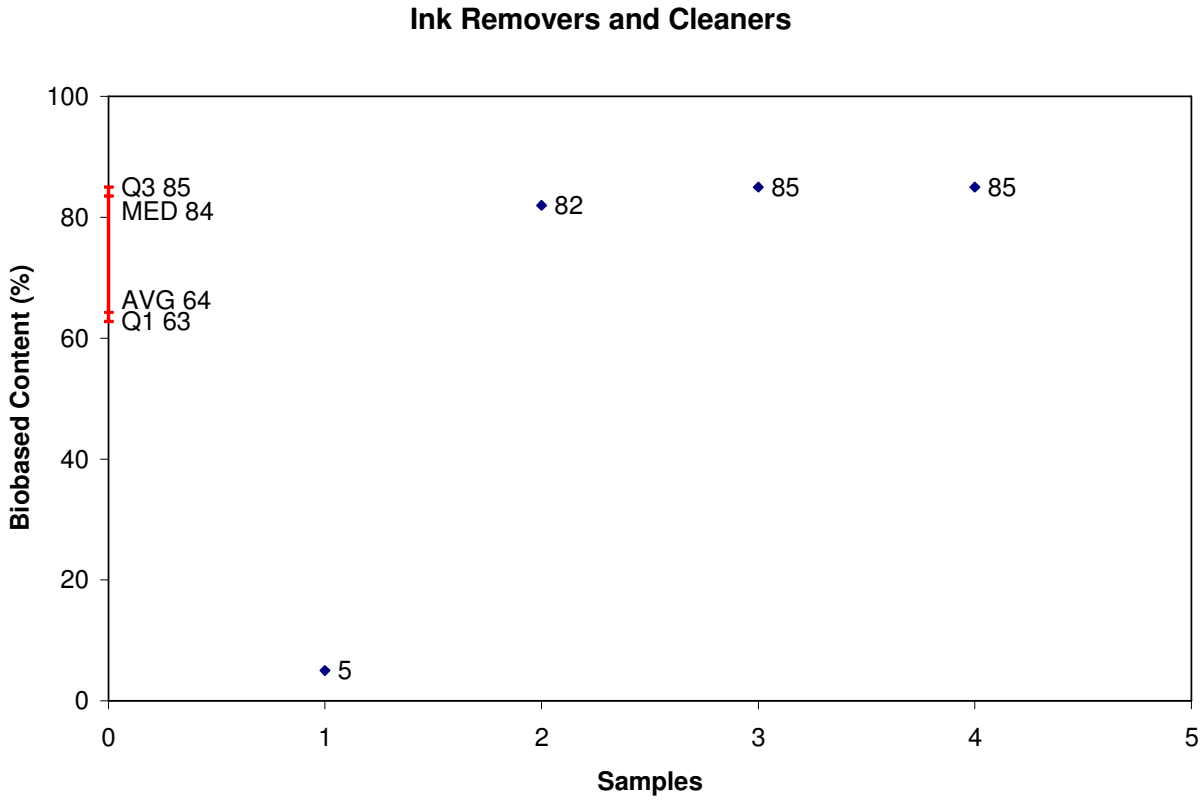
Samples Tested for Biobased Content: 4 samples of Ink Removers and Cleaners have been submitted to independent laboratories for biobased content testing as specified by ASTM standard D6866-04.

Biobased Content Data: Results from biobased content testing of Ink Removers and Cleaners indicate a range of content percentages from 5% minimum to 85% maximum biobased content as defined by ASTM D 6866-04. A detailed distribution of biobased content levels is included as Appendix A.

Products Submitted for BEES Analysis: Life-cycle cost and environmental effect data for 1 Ink Removers and Cleaners have been submitted to NIST for BEES analysis.

BEES Analysis: The life-cycle costs of the submitted Ink Removers and Cleaners range from $16.90 minimum to $16.90 maximum per usage unit. The environmental scores range from 0.0264 minimum to 0.0264 maximum. A detailed summary of the BEES results is included as Appendix B.

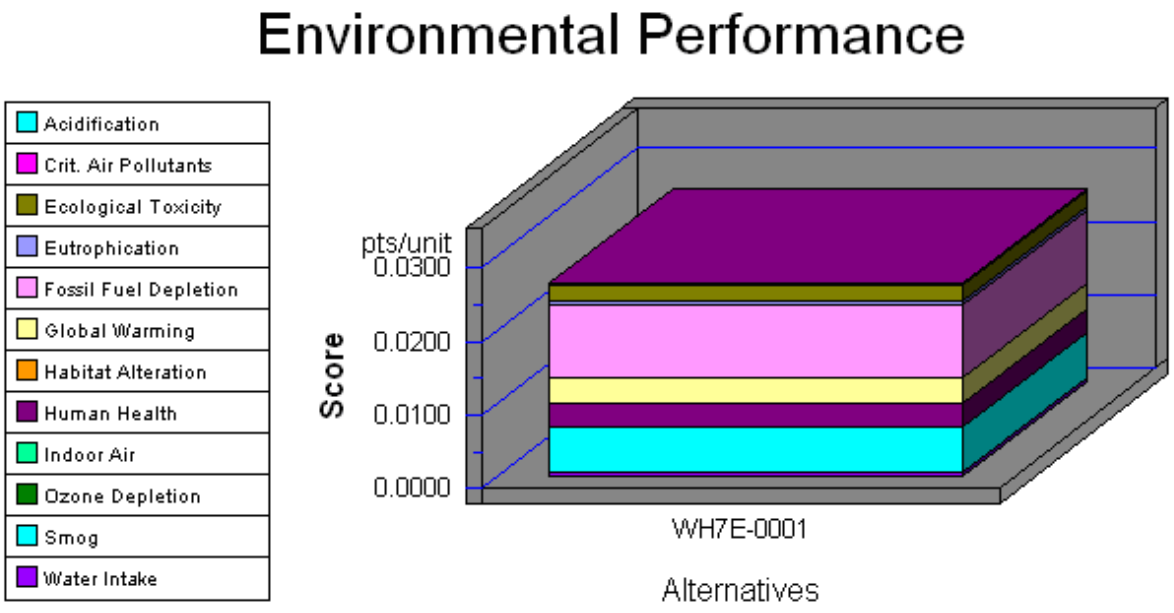
Appendix A - Biobased Content Data



	Manufacturers Identified	Products Identified	C14	BEES
1	WP11	WP11-0004	5	
2	WH7E	WH7E-0001	82	Yes
3	B9D5	B9D5-0004	85	
4	WP11	WP11-0001	85	

Appendix B - BEES Analysis Results

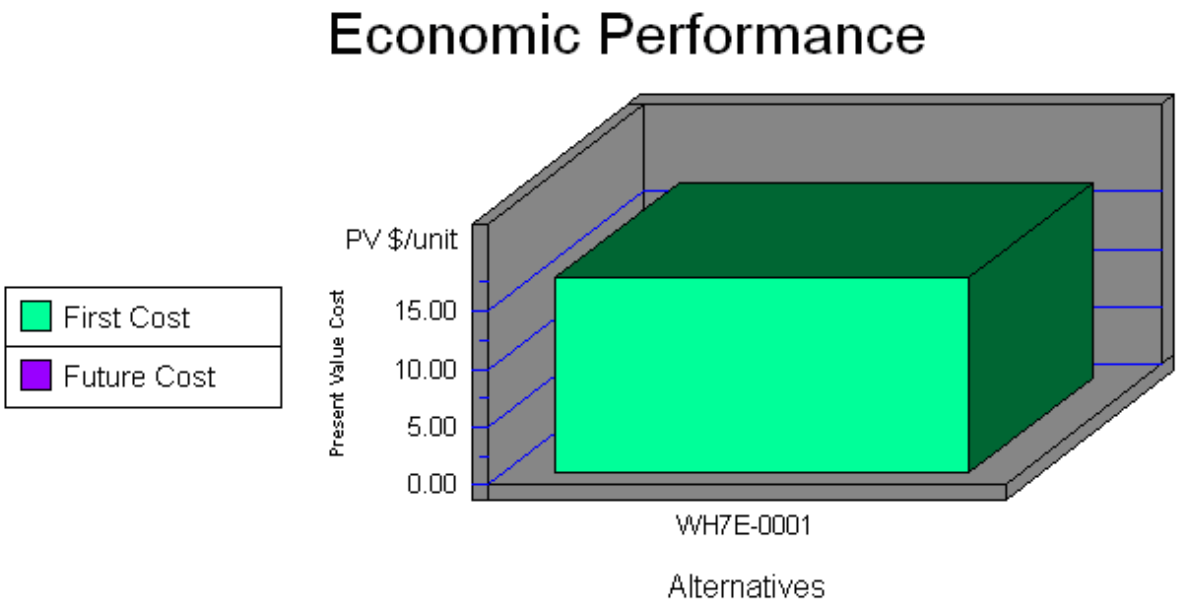
Units: 1 gallon of ink remover/cleaner



Note: Lower values are better

Category	WH7E-0001
Acidification--5%	0.0000
Crit. Air Pollutants--6%	0.0002
Ecolog. Toxicity--11%	0.0021
Eutrophication--5%	0.0006
Fossil Fuel Depl.--5%	0.0100
Global Warming--16%	0.0034
Habitat Alteration--16%	0.0000
Human Health--11%	0.0032
Indoor Air--11%	0.0000
Ozone Depletion--5%	0.0000
Smog--6%	0.0062
Water Intake--3%	0.0007
Sum	0.0264

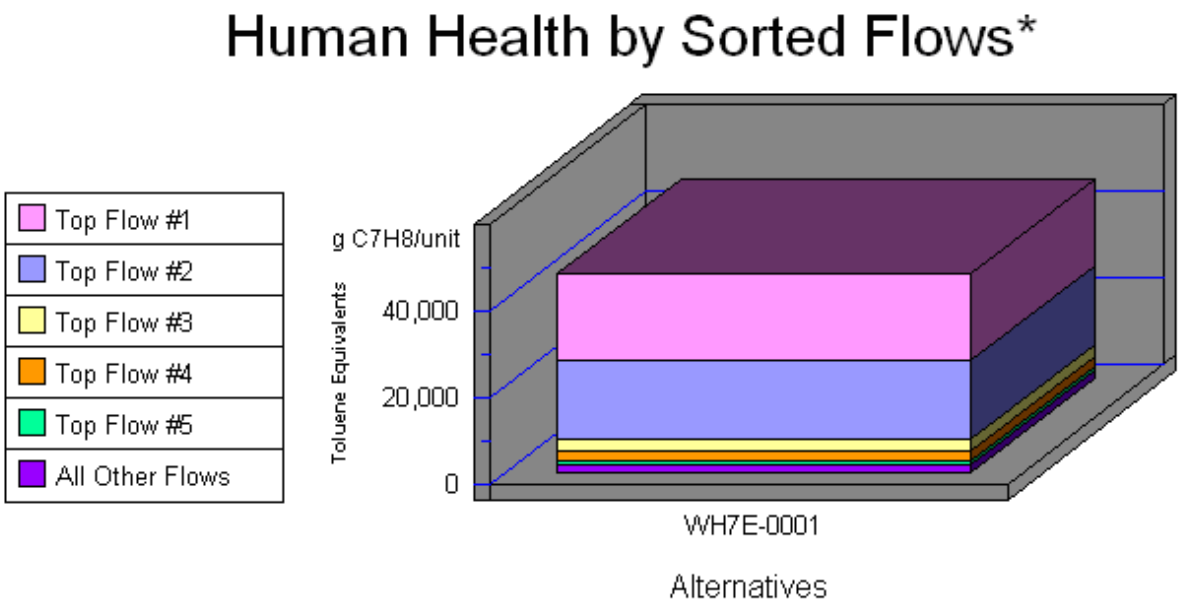
Appendix B (continued)



Category	WH7E-0001
First Cost	16.90
Future Cost-- 3.9%	0.00
Sum	16.90

*No significant/quantifiable durability differences are expected among competing alternatives. Therefore, future costs were not calculated.

Appendix B (continued)



Note: Lower values are better

Category	WH7E-0001
Cancer--(w) Arsenic (As3+, As5+	20,013.87
Cancer--(w) Phenol (C6H5OH)	18,052.68
Cancer--(a) Dioxins (unspecifie	2,776.79
Cancer--(a) Arsenic (As)	2,125.32
Cancer--(a) Benzene (C6H6)	1,351.39
All Others	1,814.34
Sum	46,134.39

*Sorted by five topmost flows for worst-scoring product

Appendix B (continued)

Ink Removers and Cleaners		
Impacts	Units	WH7E-0001
Acidification	millimoles H^+ equivalents	2.01E+03
Criteria Air Pollutants	microDALYs	4.97E-01
Ecological Toxicity	g 2,4-D equivalents	1.56E+01
Eutrophication	g N equivalents	2.26E+00
Fossil Fuel Depletion	MJ surplus energy	7.07E+01
Global Warming	g CO_2 equivalents	5.50E+03
Habitat Alteration	T&E count	0.00E+00
Human Health	g C_7H_8 equivalents	4.61E+04
Indoor Air Quality	g TVOCs	0.00E+00
Ozone Depletion	g CFC-11 equivalents	2.98E-07
Smog	g NO_x equivalents	1.56E+02
Water Intake	liters of water	1.23E+02

1 Following are more complete descriptions of units: Acidification: millimoles of hydrogen ion equivalents; Criteria Air Pollutants: micro Disability-Adjusted Life Years; Ecological Toxicity: grams of 2,4-dichlorophenoxy-acetic acid equivalents; Eutrophication: grams of nitrogen equivalents; Fossil Fuel Depletion: megajoules of surplus energy; Global Warming: grams of carbon dioxide equivalents; Habitat Alteration: threatened and engangered species count; Human Health: grams of toluene equivalents; Indoor Air Quality: grams of Total Volatile Organic Compounds; Ozone Depletion: grams of chloroflourocarbon-11 equivalents; Smog: grams of nitrogen oxide equivalents; and Water Intake: liters of water.